

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-VIII (OLD) - EXAMINATION – SUMMER 2017****Subject Code:180202****Date:29/04/2017****Subject Name: Automotive Electrical & Electronics****Time:10:30 AM to 01:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) What do you mean by testing of battery? Name the different types of Battery tests and Explain any one briefly. **07**
- (b) Explain Electronic injection system regulation for CRDI & MPFI engine. **07**
- Q.2** (a) Explain different types of HORNS. **07**
- (b) Explain voltage and current regulators with suitable sketch. **07**
- OR**
- (b) Explain in detail Electronic Power Steering of Today's Automobile. **07**
- Q.3** (a) Explain Bendix Starter drive with suitable sketch. **07**
- (b) Explain working and construction of lead acid battery used in automobile vehicles. **07**
- OR**
- Q.3** (a) Draw the circuit diagram coil ignition system and also discuss its limitations. **07**
- (b) Explain Door operated interior lights and Parking lights with suitable circuit diagram. **07**
- Q.4** (a) Explain briefly (i) Windscreen wipers and (ii) Central locking system. **07**
- (b) Explain air conditioning and heating systems in the vehicle. **07**
- OR**
- Q.4** (a) Explain Ballast Resistance & spark advance mechanism. **07**
- (b) Discuss different types of battery charging methods. **07**
- Q.5** (a) Explain construction details of a Spark Plug with the help of neat sketch and give the comparison between Hot and Cold Spark Plug. **07**
- (b) Write Short note on : 1. Wind Screen Wipers **07**  
2. Power Windows.
- OR**
- Q.5** (a) Explain ignition coil tester & distributor tester. **07**
- (b) Explain Brake warning light & Ignition warning light with circuit diagram. **07**

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